Fertility in Adults with Pediatric-Onset Spinal Cord Injury

Lawrence C. Vogel, MD
Kathy Zebracki, PhD
Kathleen M Chlan, BA

Shriners Hospitals for Children, Chicago
Rush Medical College, Chicago
Rosalind Franklin University of Medicine and Science
Background

• Having children is an important milestone of adulthood

• Little is known about relationship of fertility with medical and psychosocial outcomes in adults with pediatric-onset SCI

• Objective of the study
  – describe fertility among adults with pediatric-onset SCI
  – Examine associations between having children and demographic and injury-related factors, emotional functioning, participation, and life satisfaction.
Methods

• Cross-sectional design
• Annual survey of individuals who sustained a SCI prior to age 19 years (M=13.8)
• Demographic and medical questionnaires
• Standardized measures
  – CHART
  – SF12
  – PHQ-9
  – SWLS
Results

- N = 479
- Age at injury 0-18 years (M=13.8, SD=4.4)
- Age at follow-up 19-50 years (M=31.5, SD=6.2)
- Injury duration 1-43 years (M=17.2, SD=7.1)
- Males 63%
- Tetraplegia 54%
Results

21% (100/479) had children
- 12% (36/301) of males
- 36% (64/178) of females
- 26% (57/220) of those with paraplegia
- 17% (43/259) of those with tetraplegia
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
<th>Count (Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-24yrs</td>
<td>10%</td>
<td>5 (50)</td>
</tr>
<tr>
<td>25-29yrs</td>
<td>15%</td>
<td>24 (160)</td>
</tr>
<tr>
<td>30-34yrs</td>
<td>24%</td>
<td>31 (127)</td>
</tr>
<tr>
<td>35-39yrs</td>
<td>28%</td>
<td>25 (89)</td>
</tr>
<tr>
<td>40+yrs</td>
<td>28%</td>
<td>15 (53)</td>
</tr>
</tbody>
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Factors predictive of having children

- Females ($p<.001; \chi^2=39.99$)
  - 36% v. 12%
- Those with paraplegia ($p=.013; \chi^2=6.238$)
  - 26% v. 17%
- Those who were older at follow-up ($p=.002$) were more likely to have children
- Factors not associated
  - race,
  - complete/incomplete
  - college degree
Factors associated with having children

- Having children was significantly associated with
  - higher life satisfaction (SWLS) $(p<.001)$
  - Greater participation
    - CHART social integration $(p<.001)$
    - CHART occupation $(p=.002)$
Factors not associated with having children

- Health-related quality of life (SF12)
- Depression (PHQ-9)
- CHART
  - Cognitive independence
  - Physical independence
  - Mobility
  - Economic self-sufficiency
Results

• A subsample of 46 were asked additional questions about fertility
• 83% (38/46) reported having 1-3 biological children
  – (37/38) being born after injury
• 13% (6/46) reported having step children
• 17% (8/46) reported having adopted children
Biological Children born after injury

• 24% (9/37) had fertility treatments
  – 8/16 (50%) males
  – 1/21 (5%) females

• Of women with biological children born after injury
  – 9/20 (45%) reported having pregnancy complications
  – 25% reported having complications in labor
  – 30% reported having complications with delivery
Post-injury Sexual Aids

• 21% (8/38) of those with biological children reported the use of sexual aids
  • lubricant
  • oral medication
  • injectables
Conclusions

• While U.S. general population data indicate a decline in general fertility rate, rates are significantly lower in adults with pediatric-onset SCI

• Having children is associated with positive psychological outcomes

• Consequently, rehabilitation efforts should focus on infertility as well as non-biological reasons for not having children, such as financial and environmental.